REMARKS

This Amendment is submitted in response to the Office Action of August 25, 2005 (hereinafter "the Office Action"). Upon entry of this Amendment, claims 1-27 remain pending.

All references to the claims, except as noted, will be made with reference to the claim list above beginning on page 3. All references to "the Office Action," except as noted, will be referencing the most recent Office Action dated August 25, 2005. Line numbers referenced in the Office Action, except as noted, will count every printed line, except the page header, but including section headings. If there is any confusion or questions regarding any aspect of this Amendment, the Examiner is invited to contact the undersigned.

Amendment

The specification is amended to correct a typographical error noted on page 19. The drawings are amended to correct Figure 1 wherein a reference numeral was inadvertently left off. The claims are amended for clarity and consistency. No new matter is entered by this Amendment.

Claim Objections

Claim 4 is under objection for including the limitation "wherein the signals from the master initiator is..." (Office Action, page 2, lines 6-7). Claim 4 is amended herein so that the phrase reads, "wherein the signal from the master initiator is." Applicant respectfully submits that the limitation is now grammatically correct and the withdrawal of the outstanding objection is therefore respectfully requested.

Claim Rejections -- 35 U.S.C. § 112, second paragraph

Claims 1, 2, 13, and 21 stand rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the invention.

Claims 1 and 21

With regard to claims 1 and 21, the Office Action states that it is unclear why an already registered target would register again. To answer this question, it is necessary to review the purpose of the invention.

The present disclosure describes a protocol for discovering peripheral devices attached to a network (see specification, page 1, lines 14-16). It should be understood that it devices may be added to the network and removed from the network, and the attached initiators should be capable of maintaining an updated understanding of what devices are attached, without being explicitly instructed as to what devices are available. The system discovers new devices by establishing a master initiator which periodically transmits a multicast signal, e.g., once a second, to all attached devices. Each new device that has not previously registered will respond to the master initiator multicast with a unicast response containing information regarding the new device (specification, page 14, lines 8-12; page 15, lines 6-10).

To determine when a device is disconnected from the network, the protocol provides for periodic re-registration of each connected device. If the device fails to re-register within the selected re-registration interval, e.g., 10 minutes, then the master initiator (and all slave initiators) assume the device is no longer connected (specification, page 18, lines 5-10; page 24 line 22 to page 25 line 2).

Each time a new device is added or an old device re-registers, information regarding the device is included in a subsequent multicast by the master initiator. Slave initiators are therefore informed that new devices are now present, and old devices are still present. If a slave initiator does not receive target information related to an old device within the established re-registration interval, then it will remove the old device from its list. The multicast does not include data on every attached device in every multicast. Therefore, if there is no new target or no re-registration of an old target, then no target information is included with the multicast.

It should therefore be seen that re-registration is necessary to inform the master initiator and slave initiators that a particular device is still connected to the network. The Applicant has endeavored to clarify claims 1 and 21 to overcome the outstanding 35 U.S.C. § 112 rejection, the withdrawal of which is respectfully requested.

Claims 2, 4, 7, and 13

With regard to claims 2, 4, 7, and 13, the Office Action states that these claims contain phrases lacking sufficient antecedent basis. The claims have been amended to overcome these rejections, the withdrawal of which is respectfully requested

Claim Rejections – Prior Art

Claims 1, 2, 4-13, and 15-27 stand rejected under 35 U.S.C. § 102(e) for being anticipated by U.S. Patent 6,049,878 issued to Caronni et al. (hereinafter, "Caronni"). Claims 3 and 14 stand rejected under 35 U.S.C. § 103(a) as being obvious over Carroni in view of U.S. Patent Application Publication 2002/0133573 by Matsuda et al. (hereinafter, "Matsuda"). Applicant respectfully traverses.

For anticipation under 35 U.S.C. § 102(b), each and every limitation set forth in the claim must be present in a single prior art reference. Likewise, for obviousness under 35 U.S.C. § 103(a), each and every limitation must be taught or suggested by the prior art. It should therefore be noted that Applicant need only point out a single limitation in each claim that is not disclosed by the Office Action to overcome an anticipation rejection. The following discussion therefore should not be construed as an exhaustive listing of every distinguishing feature set forth in the claims.

Caronni discloses a system for secure "multicast" communication between a plurality of individuals connected via the Internet. It should be noted that Caronni uses the term, "multicast" differently than as defined in the instant specification. Specifically, the instant specification states that "Multicast signals are signals that do not go just to a specific destination but go to all nodes within the network . . ." (specification, page 13, lines 7-8). In contrast, Caronni speaks to a communication protocol system wherein only individuals that have subscribed to a group receive multicast messages sent to the group (Caronni, col. 1, lines 24-33).

Thus, at the outset, Caronni does not disclose "multicasting a signal from a master initiator over the network" as set forth in claim 1, line 3 and claim 11, line 3. Furthermore, Caronni does not disclose "transmitting a plurality of multicasts over the network" as set forth in claim 21 line 4. Furthermore, Caronni does not disclose "a master initiator . . . configured to send a multicast throughout the network" as set forth in claim 23 lines 2-3.

Claim 1 further sets forth, "determining if a previously registered target re-registered with the master initiator by a unicast to the master initiator" (claim 1, lines 4-5). Claim 21 sets forth, "in response to determining that a previously registered target re-registered with the master initiator, maintaining the previously registered target on the list of targets" (claim 21, lines 11-12). The Office Action identifies Coronni, col. 4, lines 55-57 and col. 7, lines 23-40. However, Coronni does not mention re-regestering by targets or any analogues thereof.

As mentioned above, the purpose of requiring re-registration by components is to ensure that they are still connected to the network. Coronni does not mention any technique of determining that participants of the IP multicast group are still connected.

Claim 23 sets forth "a master initiator . . . configured to periodically send a multicast throughout the network; at least one target . . . at least one slave initiator, the at least one slave initiator configured to receive target information from the multicasts" (claim 23 lines 2-5). Caronni does not mention a slave initiator, nor does it mention using the multicast to transmit target information "throughout the network."

Because each of the claims identified above contain a feature not present in Caronni, Applicant respectfully submits that Caronni does not anticipate the identified claims and that the claims are therefore allowable over Caronni. Each claims not identified above depends from one of the above mentioned claims and is therefore allowable for at least the same reasons mentioned above with respect to the depended-upon claim. Accordingly, Applicant respectfully submits that all pending claims are now allowable over the prior art of record.

For the reasons identified above, Applicant respectfully submits that the instant Application is now in condition for allowance. A Notice of Allowance is therefore respectfully requested.

If the Examiner has any questions concerning the present amendment, the Examiner is kindly requested to contact the undersigned at (408) 774-6933. If any other fees are due in connection with filing this amendment, the Commissioner is also authorized to charge Deposit Account No. 50-0805 (Order No. ADAPP085A2). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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IN THE DRAWINGS

Amendment to the Drawings:

The attached sheet of drawings includes changes to Figure 1. Specifically, the reference number 100 generally indicating the network depicted is added, for consistency with the specification, e.g., at page 12, line 14.